

A NEW PALE MALE OF *COLIAS PHILODICE*

by CHARLES L. REMINGTON

The occurrences of "white males" in seven species of *Colias* have been recently summarized (Remington, 1954b: pp. 438-441), and two different hereditary forms in *C. philodice* Godart have been described in detail (Remington, 1954a). In corresponding for the 1953 Season Summary of North American Lepidoptera, my father, P. S. REMINGTON, learned of a new "white male" of *C. philodice* taken at Milwaukee, Wisconsin, in August, 1953, by G. F. SCHIRMER. Mr. SCHIRMER very kindly sent me the specimen on loan for comparison with the Connecticut males. It proves to be of special interest, although nothing is known of the heredity of this individual.

The Wisconsin male is distinctly whiter than the Connecticut "blonde" and "whitish" forms. Unlike all other *Colias* males and females I have seen, there is no yellow, red, orange, or pink scale on the wings, body, or appendages of the new male; this gives the upperside, and especially the underside, a chalky white appearance. The upperside scales, particularly of the forewings, have a faint creamy tinge. However, this specimen has the black scales unmodified, as in the usual wild-type *C. philodice*. The factor causing the blanching seems to have acted only on the presumed pterin-pigmented scales, since it did not affect the cuticular color of the antennae and other structures nor the black scales. The eyes also appear to have been normally pigmented. The hindwing discal spot is colorless, as in the "blonde" form, but the scales are white above and beneath, whereas the "blonde" individuals have the upperside Pale Chalcidony Yellow and the underside of the hindwing Cream-Buff. If the new male represents a genetic form, it is likely that a third gene controls it.

Dr. E. A. COCKAYNE has kindly called my attention to the apparent implication in my recent paper (1954a) that WARRIER'S (1951) "albino" form of *Colias croceus* Fourcroy had the ground-color whitish. WARRIER'S form is a hereditary one in which the usual black marginal markings have been blanched in both sexes, but the ground-color is orange except in females having the "alba" gene.

References

- Remington, C. L., 1954a. Two new genes, "whitish" and "blonde", producing pale males and females of *Colias philodice*. *Lepid. News* 7: 139-145.
 , 1954b. The genetics of *Colias* (Lepidoptera). *Advances in Genetics* 6: 403-450, 6 figs.
 Warrier, R. E., 1951. On breeding *Colias croceus* Fourcroy. *Ent. Rec. Journ. Var.* 63: 198-199.

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